

ABSTRACT

DNS in its native form cannot identify a good or best server. Traditional Service Providers deploy a centralised approach to global traffic management based on enhancements to DNS, but do have the capability to augment this with edge-based server selection because they do not own/operate an edge network. Their resolution of DNS requests is typically restricted to identifying candidate servers within an edge domain rather than selecting the "best" server. The invention proposes a method of handling Internet resource requests whereby a local lookup server receiving a request searches for a best server able to satisfy the resource request. The local lookup server finds the best server by searching a database for a resource record associated with the best server, and then uses the resource record to retrieve an identifier of a series of executable instructions that are executed to locate the best server. The resource requests and responses may hold additional information relating to operational characteristics which may be used to determine the best server. The invention proposes a DNS record type comprising a user-defined field for conveying this additional information in the resource request and in the response. The invention also proposes architecture for handling the resource request comprising a network server that provides the requested resource using the best server, as well as a communications network comprising this architecture.